

AS
Components of the part to be analyzed would be identified and Component Control Numbers assigned which for existing parts could be the part number. The Component Control Number carries forward on all screens and for all the data relative to the component being costed for use in other screens, if applicable, and for the report section. Assignments would be given to the team members at this meeting which could be a meeting at which those involved are actually gathered together or an audio or video conference or combination of the above. The necessary data for the data entry fields would be prepared and loaded into the program.

6. Replace Paragraph 0108 with the following paragraph:

AC
[0108] Figures 2 through 18 are illustrations of the computer screens that can be selected from the computer program and into which cost components are inputted. All of the screens of this program are interactive thus if an improvement is made in a screen that has been completed, the screen can be updated and the change will be reflected in all other applicable screens.

REMARKS

The application is amended to insert a claim the benefit of the provisional application, to clarify the description and to correct typos. No new matter is introduced by these amendments. Redline copies of the amended pages are attached..

Preliminary to the examination of the above-identified application, Applicants wish to bring to the attention of the Examiner the references identified on the attached form PTO-1449, copies thereof being enclosed herewith. Each of these references relate to systems or methods of estimating cost..

An action on the merits is requested.

Respectfully submitted,



Dennis K. Sullivan

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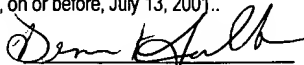
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CERTIFICATE UNDER 37 CFR 1.8 (a)

I hereby certify that this INFORMATION DISCLOSURE STATEMENT is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on or before, July 13, 2001..


Dennis K. Sullivan



OUGHTA COST PURCHASING PROCESS

This application claims the benefit of U.S. Provisional Application No. 60/198906, filed April 20, 2000.

BACKGROUND OF THE INVENTION

[0001] The need for a process, such as "Oughta Cost," is the competitive nature of business today. There is significant pressure on cost, and the firms that will survive in the future will align themselves with suppliers/partners that will commit to developing and utilizing the world's best processes to insure that they are the least cost producer.

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B1 > [0002] Traditionally, when a firm or business desires to have a part made for them by a supplier, they would provide a number of potential suppliers with a disclosure of the part and other relevant information and ask them to submit a quote. However, a quoting process such as this merely provides prices at which the suppliers wish to sell the part and there is no rational basis to assume that the quoted price is based upon what the cost to produce the part is or, for that matter, is the price competitive. Under the traditional quoting process, three quotes were obtained and the lowest quote was accepted. Under more informed systems, the lowest quote becomes the price from which a final price is negotiated. Regardless of what followed the submission of quotes, there is no guarantee that the final price is based upon what the cost to manufacture the part "ought to be." Even if the supplier provides data explaining how the quoted price was arrived at, there is no assurance that the data is accurate. Furthermore, there is no assurance that the best design, manufacturing practices, supply chain management techniques, labor rates, uptimes and yields will be employed to produce the part. Most buyers, and most sellers for that matter, do not know what the "lowest possible cost" is for the product they are buying (or selling).

[0003] Thus, the traditional "quote process" does not address the question of what the cost of the part ought to be or whether the product, service or process will have a best of-in class quality. Product, service or process cost is usually derived from the standard cost system or a job order cost system both of which have a number of faults that prevent them from being reliable sources for determining what the cost ought to be. For example, standard cost usually is an average cost for a number of products, processes or services. Thus, the lowest quote is not necessarily what the cost of the part ought to be. Factors that affect what the cost of a part ought to be includes the design itself, the purchase cost of materials, the quality of the part, the productivity of the manufacturing process, the location of the manufacturing facility and the labor and operating cost. These

field into which an operator can input data could be changed to a pull down menu if and when sufficient data is available without departing from the practice of this invention.

[0014] The Labor Section, for example, includes several pull down menus listing various skilled tradesmen, best in class pay scales and the cost of their benefits. Factors will be included for scrap and rework and the material cost will be calculated. Best in class labor rates, both direct and indirect, will be applied to the times determined for the manufacturing process and a factor for employee benefits will be added to determine total hourly cost. It is important in applying this process that best in class practices, processes, labor rates, uptimes and yields are used to guard against the potential supplier basing their cost figures on their current processes. The "Oughta Cost" process must focus potential suppliers on staying current with the best in class approach for every phase of the process. This will direct the potential suppliers to achieve a best in class status. Other costs, such as inventory carrying costs, interest, amortization, cutting tool expenses and engineering will all be considered in establishing what the cost ought to be.

[0015] ~~Since~~ In order to depict the best in class process, it is anticipated that the supplier may have to acquire new machines or even new facilities in order to meet the oughta cost target, a Capital section has been included in the program. The Capital section allows the input of capital investments that are required for machines and increase capacity to manufacture the part, and the computer program will then compute the amount of depreciation to be charged to each part. The results of these calculations will also be used when inputting data to the Overhead screen.

[0016] The program includes a Manufacturing Screen where the required volume for the component being processed is inputted and the uptime for current and World class manufacturing machines can be selected from drop down menus or data bases. This screen also includes fields for entering the required manufacturing time as well as work days per year, work shifts per day, and work hours per shift that will be required to accomplish the manufacturing task. When all the fields of the Manufacturing Screen have been entered and stored, the section is totaled and the next category is available for selection. However, if a-any screen is being worked on but has not been completed, if a new screen is selected all data that has been entered in the uncompleted screen is automatically saved.

[0017] The Overhead Screen displays the total depreciation for capital assets required to manufacture each component selected. Also displayed on this screen is the portion of depreciation consumed by that part. General overhead is applied by selecting a percentage from a drop down menu in the Additional Expenses section. Overhead rates can be modified at any time if it is determined that additions and/or deletions are required. When all items of a screen have been selected and stored, the line items are stored and another screen can be selected.

[0097] Figure 15 is the Overhead screen with the data for the Depreciation filled in and the Warranty Cost drop down menu open.

[0098] Figure 16 is another view of the Overhead screen with the Cost Category drop down menu open.

[0099] Figure 17 is the Reports screen shown with the Program Number drop down menu open.

[0100] Figure 18 is the Reports screen displaying the information that identifies the Report that is being requested and with the drop down menu open that provides the options for what should be done with the Report that has been requested.

DETAILED DESCRIPTION OF THE INVENTION

[0101] Although this invention is susceptible of being presented in embodiments of many different forms, there is shown in the drawings, and will be discussed in detail, a specific embodiment thereof with the understanding that the present disclosure is to be considered as an exemplification of the principles of the invention and is not intended to limit the invention to the specific embodiment illustrated. The specific embodiment has been developed on a variety of commercially available software programs and servers.

[0102] The decision to use this program to perform an Oughta cost analysis could be made for various reasons. It could involve a new part/process or an existing part/process. When such a decision is made, the decision is recorded in the program and the next Program Number is assigned to the particular request. A project champion is assigned to the particular request who selects a team that typically will include a person from Engineering, Manufacturing, Purchasing and Finance. However, team members will vary depending on the product, service or process to be analyzed. An initial team meeting would generally be scheduled at which the team examines the product, service or process to be analyzed and costed. If available, data such as product prints, prototype parts and standard information would be made available and discussed at such a meeting as well as the development or purchase of custom information required for this particular analysis. In some situations, for example, if the part is new and the design is not yet fixed, the team may decide that a supplier or suppliers should be consulted at this stage. If additional data is required, appropriate members of the team are assigned the task of acquiring such data. Components of the part to be analyzed would be identified and Component Control Numbers assigned which for existing parts could be the part number. The Component Control Number carries forward on all screens and for all the data relative to the component being costed for use in other screens, if applicable, and for the report section. Assignments would be given to the team members at this meeting which could be a meeting at which those involved are actually gathered together or an auto-audio or video conference or combination of the above. The necessary data for the data entry fields would be prepared and loaded into the program.

use their local facilities and display stations to input data, display information and print reports from their local printers 28 from the Oughta Cost system. All corporate locations are connected to a wide area network and are provided access to the Oughta Cost system through a router 24 that links the local area network with the wide area network. The linkage of the two networks allows local, remote and external access into the Ought Cost system. Also the plant Main Frame Computer 16 and the Corporate Main Frame Computer 22 are tied together providing an extended pool of data available to all Oughta Cost Users.

[0106] Although a preferred embodiment of the system server is illustrated Figures 1A and 1B other embodiments could of course be developed. Although the preferred embodiment utilizes a conventional computer having a monitor or a plasma panel and a keyboard and/or mouse it is contemplated that the program could be provided in a miniature computer that could be held in the palm of the users hand. The network disclosed herein could also communicate with external databases such as a data base that provides the prime rate or other rates that change. The term "part," as used in this application, can mean a complete part or a component of a part that is comprised of several parts. If the part that it is desired to determine its ought-to-be cost was comprised, for example, by a shaft, a housing and a bearing block, then the process would be run for each of the three components and perhaps a fourth run for assembling the three components.

[0107] The process for determining what the cost of a part ought to be can be best understood through an example that will be presented with respect to a shaft that is made from a steel forging that is machined. However, it should be understood that the process can be conducted for any part/process made by any process. Furthermore, the "Oughta Cost" process is equally applicable to what the cost of a process or a service ought to be and thus can also be used in the service industry.

[0108] Figures 2 through 18 are illustrations of the computer screens that can be selected from the computer program and into which cost components are inputted. All of the screens of this program are interactive thus if an improvement is made in a screen that has been completed, the screen can be updated and the ~~change~~ change will be reflected in all other applicable screens.

[0109] Figure 2 is an index screen that is displayed after the Oughta Cost Program has been accessed. This screen includes an Oughta Cost Search section, that will allow a person using the system to perform a search of fields of the system that include descriptive words of the description of existing studies. In the screen shown in Figure 2 "New Crankshaft" has been entered in the search box and three existing studies have been identified that include the search term in the fields that are searched. This feature will not only allow specific Studies to be located but it will also existing Studies to be found that are